REMARKS/ARGUMENTS

This is responsive to the Official Action of September 19, 2007, a Final Rejection. Claims 1-19 are pending in the application of which claims 1-3, 18 and 19 are under active examination as directed to elected subject matter. All of these claims stand rejected.

In the previous Amendment, Applicant added to claim 1 a feature that the glass contains no Li_2O and argued that the use of the glass that is free of Li_2O is effective not only to increase the glass transition temperature in order to improve the glass's heat resistance and but also to decrease the precipitation of an alkali on the glass substrate (*see* page 6, line 4 from the bottom to page 7, line 2 of the Response filed on July 6, 2007).

In the outstanding Office Action, the Examiner has withdrawn the rejection under 35 U.S.C. 102(b) or under 35 U.S.C. 103(a) as anticipated by or obvious over Nakashima US'510 alone (*see* page 3, 1st paragraph of the Office Action), but retained the rejection under 35 U.S.C. 103(a) as obvious over Nakashima US'510 and Miyamato US'634 by adding to it a newly cited third prior art reference, Goto US'311 (see page 3, 2nd paragraph of the Office Action).

In the outstanding Office Action, the Examiner states that the primary reference Nakashima US'510 does not refer to an etch rate however, Miyamoto is cited as it teaches the worker of ordinary skill to optimize the etch rate within 0.1um/minute or less with hydrosilicofluoric acid within 45°C and a concentration within 1.72 % by weight (Miyamoto col. 9, lines 4-28) (*see* page 3, 3rd paragraph of the Office Action).

However Miyamoto US'634 only discloses that hydrosilicofluoric acid is used during processing the surface of the glass substrate (for example, see col.6, lines 56-61) and the temperature and concentration of the hydrosilicofluoric acid are 15-60 °C and 0.15-3.0 weight % (see col7. lines 19-28). Thus when considered in full text this US patent neither discloses nor suggests the essential requirement of the present invention that the glass have an etching rate of 0.1um/minute or less with regard to a hydrosilicofluoric acid aqueous solution that is maintained at a temperature of 45 °C and has a hydrosilicofluoric acid concentration of 1.72 % by weight as set out in applicant's claim 1.

Therefore the conclusions reached based on the Miyamoto US'634 disclosure are unreasonable.

In the outstanding Office Action, the Examiner states that though the glass of Nakashima US'510 includes Li_2O, newly-added Goto US'311 teaches eliminating the Li_2O component in glass to eliminate the crystalline phases which increases Young's Modulus (see page 4, lines 3-9 of the Office Action). Applicant disagrees.

Goto US'311 relates to glass ceramics containing, as a predominant crystal phase or phases, at least one selected from α-cristobalite, α-cristobalite solid solution, α-quartz and α-quartz solid solution, and containing substantially no lithium disilicate ($Li_2O{\cdot}2SiO_2$), lithium silicate ($Li_2O{\cdot}SiO_2$), and five other components (*see* claim 1).

As noted, the newly cited reference describes seven specific materials which are not "substantially" present in some of the compositions described and claimed in it. These "minimized" components are identified at column 5, lines 24-27 and the reasons for their exclusion or minimization are discussed in column 6, lines 54-64. Of these seven possibilities the examiner focuses on only one but does not conclude in the argumentation in support of the rejection why only one of these components would or should be excluded and not all of them. Further, the reasoning underlying the alleged exclusion of one of these components is not entirely clear.

In the glass ceramics of Goto US'311, lithium disilicate ($Li_2O{\cdot}2SiO_2$) is excluded to reduce occurrence of small pits in the surface portion of the substrate due to mechanical causes in the polishing process (see col.6, lines 54-59) and lithium silicate ($Li_2O{\cdot}SiO_2$) is excluded for same reason mentioned.

However Goto US'311 definitely discloses that Li_2O is essentially contained in the patented compositions in an amount of 4-less than 7 % (*see* col.6, Table and claim 7), and therefore the assertion that Goto US'311 discloses eliminating Li_2O in glass is not consistent with the overall teaching of the entire content of the reference.

In the outstanding Office Action, the Examiner argues at page 4, lines 13-16 that adopting Goto et al's eliminating the Li_2O component for lowering Young's Modulus would have been obvious motivated by the desire in the art phases for glass with a reduced brittleness at the lower Young's Modulus (Goto et al col.5, lines 21-44).

Applicant has difficulty in understanding this argument because Goto US'311 only disclosed at the portion pointed out by the Examiner that the glass ceramic has a thermal

expansion coefficient of $+65\times10^{-7}$/°C to $+140^{-7}$/°C -- it does not mention about Young's modulus and brittleness.

One skilled in the art will consider this reference for what it actually discloses and recognize that Goto US'311 does not disclose or suggest the technical feature of the present invention that the glass does not contain Li_2O and the technical advantage achieved thereby that the glass transition temperature (Tg) of the glass is increased to 600°C of higher (as required in claim 1) to improve the glass in heat resistance while at the same time the precipitation of an alkali on a glass substrate is decreased.

For the above reasons it is respectfully submitted that the claims of this application define inventive subject matter. Reconsideration and allowance are solicited. Should the examiner require further information, please contact the undersigned.

Respectfully submitted,

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